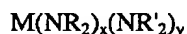


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Section I. (Amendments to the Claims)

Please add claims 92-106, as set out below in the listing of claims 1-106 of the application.

1. (Previously Presented) A liquid CVD precursor composition for forming a thin film dielectric on a substrate, such precursor composition including at least one metalloamide source reagent compound having a formula:



wherein M is selected from the group consisting of: Y, Hf, La, and Ta; N is nitrogen, each of R and R' is independently selected from the group consisting of H, aryl, perfluoroaryl, C₁-C₈ alkyl, C₁-C₈ perfluoroalkyl, and alkylsilyl; (NR₂)_x and (NR'₂)_y are different amino ligands and R' is different from R; x is from 1 to 5; y is from 1 to 5; and x+y is equal to the oxidation state of metal M, and a solvent medium, wherein the metalloamide source reagent compound is soluble or suspendable therein.

2. (Previously Presented) The liquid CVD precursor composition according to claim 1, wherein one of the amino ligands is NMe₂.

3. (Previously Presented) The liquid CVD precursor composition according to claim 1, wherein one of the amino ligands is NEt₂.

4.-7. (Cancelled)

8. (Previously Presented) The liquid CVD precursor composition according to claim 1, wherein the solvent medium is selected from the group consisting of: ethers, glymes, tetraglymes, amines, polyamines, alcohols, glycols, aliphatic hydrocarbon solvents, aromatic hydrocarbon solvents, cyclic ethers and combinations of two or more of the foregoing.

9. (Cancelled)

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10. (Previously Presented) The liquid CVD precursor composition according to claim 8, wherein the solvent is octane.

11. (Previously Presented) The liquid CVD precursor composition according to claim 1, wherein the metalloamide source reagent compound is injected by liquid delivery into a chemical vapor deposition chamber.

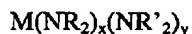
12. (Previously Presented) The liquid CVD precursor composition according to claim 1, wherein the metalloamide source reagent compounds is delivered by bubbler into a chemical vapor deposition chamber.

13.-15. (Cancelled)

16. (Previously Presented) The liquid CVD precursor composition according to claim 1, wherein the precursor composition comprises multiple metalloamide source reagent compounds.

17.-36. (Cancelled)

37. (Previously Presented) A liquid CVD precursor composition for forming a thin film dielectric on a substrate, such precursor composition including a vapor source reagent mixture including a metalloamide source reagent compound having a formula:



wherein M is selected from the group consisting of: Y, Hf, La, and Ta,; N is nitrogen; each of R and R' is independently selected from the group consisting of H, aryl, perfluoroaryl, C₁-C₈ alkyl, C₁-C₈ perfluoroalkyl, and alkylsilyl; M(NR₂)_x and (NR'₂)_y are different amino ligands and R' is different from R; x is from 1 to 5; y is from 1 to 5; and x+y is equal to the oxidation state of metal M, and a solvent medium, wherein the metalloamide source reagent compound is soluble or suspendable therein.

38.-86. (Cancelled)

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87.-91. (Cancelled)

92. (New) The liquid CVD precursor composition of claim 1 wherein the precursor composition further comprises an aminosilane source reagent compound of the formula:



wherein H is hydrogen; x is from 0 to 3; Si is silicon; N is nitrogen; each of R₁ and R₂ is same or different and is independently selected from the group consisting of H, aryl, perfluoroaryl, C₁-C₈ alkyl, and C₁-C₈ perfluoroalkyl.

93. (New) The liquid CVD precursor composition of claim 1, wherein the CVD precursor composition further comprises a vapor source reagent compound selected from the group consisting of silane, trimethylsilane, tetramethylsilane, tetraethylorthosilicate.

94. (New) A CVD method of forming a dielectric thin film on a substrate, comprising:

vaporizing the liquid CVD precursor composition of claim 1 to form a source reagent precursor vapor;

transporting the source reagent precursor vapor into a chemical vapor deposition zone, optionally using a carrier gas; and

contacting the source reagent precursor vapor with a substrate in said chemical vapor deposition zone at elevated temperature to deposit a dielectric thin film on the substrate.

95. (New) The CVD method according to claim 94, wherein the liquid CVD precursor composition is vaporized in a liquid delivery apparatus.

96. (New) The CVD method according to claim 94, wherein the source reagent precursor vapor is transported into the chemical vapor deposition zone in a pulsed deposition mode.

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97. (New) The CVD method according to claim 94, wherein the dielectric thin film is deposited in the absence of an oxidizer.

98. (New) The CVD method according to claim 94, wherein the liquid CVD precursor composition further comprises an aminosilane source reagent compound.

99. (New) The CVD method of claim 98, wherein the aminosilane source reagent compound has the formula:



wherein H is hydrogen; x is from 0 to 3; Si is silicon; N is nitrogen; each of R₁ and R₂ is same or different and is independently selected from the group consisting of H, aryl, perfluoroaryl, C₁-C₈ alkyl, and C₁-C₈ perfluoroalkyl.

100. (New) The CVD method of claim 94, further comprising contacting the source reagent precursor vapor with the substrate in said chemical vapor deposition zone in the presence of an oxidizer at elevated temperature to form the dielectric thin film on the substrate.

101. (New) The CVD method according to claim 100, wherein the oxidizing gas is selected from the group consisting of: O₂, N₂O, NO and O₃.

102. (New) The CVD method according to claim 94, wherein the chemical vapor deposition zone is at a temperature in the range of from about 350°C to about 750°C.

103. (New) A method of forming a dielectric thin film on a substrate, comprising:

vaporizing a source reagent precursor composition mixture comprising the liquid CVD precursor composition of claim 1 and at least one aminosilane precursor, to form a source reagent precursor vapor;

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transporting the source reagent precursor vapor into a chemical vapor deposition zone, optionally using a carrier gas;

contacting the source reagent precursor vapor with a substrate in said chemical vapor deposition zone at elevated temperature to deposit a dielectric thin film on the substrate.

104. (New) A method of manufacturing a microelectronic device comprising a substrate having a dielectric thin film thereon, said method comprising:

vaporizing the liquid CVD precursor composition of claim 1 to form a source reagent precursor vapor;

transporting the source reagent precursor vapor into a chemical vapor deposition zone, optionally using a carrier gas; and

contacting the source reagent precursor vapor with a substrate in said chemical vapor deposition zone at elevated temperature to deposit a dielectric thin film on the substrate thereby forming said substrate having said dielectric thin film thereon.

105. (New) The method according to claim 104, wherein the liquid CVD precursor composition further comprises an aminosilane source reagent compound.

106. (New) The method of claim 105, wherein the aminosilane source reagent compound has the formula:



wherein H is hydrogen; x is from 0 to 3; Si is silicon; N is nitrogen; each of R₁ and R₂ is same or different and is independently selected from the group consisting of H, aryl, perfluoroaryl, C₁-C₈ alkyl, and C₁-C₈ perfluoroalkyl.